

# A study module in the logical structure of cognitive process in the context of variable-based blended learning

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## Abstract

© 2017 by Academic Publishing. Blended learning is increasingly gaining importance in all levels of educational system, particularly in tertiary education. In engineering profiles the core blended learning activity is students' independent work, the efficiency of which is defined by the degree of students' active involvement into the educational process, their ability to absorb new knowledge independently, on their own. Our research is aimed at the analysis of blended learning and at revealing the approaches meant to activate students' independent work in blended learning based on LMS Moodle platform. The characteristic feature of the suggested approach is the orientation towards skills and work methods mastering carried out in the form of professional competencies training at practical classes and laboratory workshops. For the purpose of our research we used one of the most interactive Moodle tools - "workshop" in order to fulfill informational, educational and monitoring functions of learning. The use of the tool allowed revealing drawbacks of the method under study and managing these drawbacks in the most effective way. The paper contains the description of students' learning and independent work which would stimulate students' activity, self-management and develop their communicative skills. The outcomes of the current research proved that the approaches suggested significantly stir students' interest, thus, enhancing students their learning motivation, development of critical thinking and self-reflection, which altogether facilitate understanding theoretical material, encourage the development of practical skills and promote the pursue of academic goals.

<http://dx.doi.org/10.13187/ejced.2017.1.48>

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## Keywords

Cognitive activity and independent work, Engineering education, LMS Moodle

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